BLENDED LEARNING
SKILL, SCALE AT SPEED

An Overview of Blended Learning in the UK and India

(Volume I)

FOREWORD

India has the potential to become the talent pipeline for the world and by 2030, 1 in 4 of the global workforce will be from India.

However, with only 10% of India's labour force having received some kind of formal or informal training, the government has shown its commitment to skilling India's growing working–age population. This is articulated by the ambitious 2015 National Policy for Skill Development and Entrepreneurship and highlighted via Prime Minister Modi's Skill India initiative.

With a target of skilling 400 million people by 2022, 'skilling at scale with speed' is a challenge particularly for countries looking to form international partnerships with India. With widespread technology and increase of smart phone usage in India, skills training programmes, including English language training and assessment, can take advantage of digital platforms and help make partnerships possible and scalable. The skill development policy clearly identifies the importance of leveraging modern technology to ensure scale, access and outreach.

The UK has had extensive experience in the use of integrating technology into skill development programmes. There is a range of best practice in the UK that blends face to face teaching with technology. This report also seeks to identify and share the knowledge and expertise in the UK and to identify key sectors in India where there is shared expertise and demand.

Through the report, we share some of the innovative ideas in the UK and identify working model that the stakeholders in the UK and India may consider for implementation. I hope that the findings are useful and relevant for policy makers, planners and skill development providers in India and the UK.

Richard Everitt
Director Education and Society
British Council Division
New Delhi

FOREWORD

The Government of India has been working towards achieving the target of skilling 400 million people by 2022. This is an enormous task, and in order to scale up the government's skill development initiatives, there has been an increasing realisation of the need to look beyond traditional approaches to skill development, and explore innovative ways of promoting quality skill development.

During this debate, the blended learning model – which combines online delivery of training material with the individual support of personal mentors – has emerged as a potentially exciting means of scaling up operations. This report combines this innovative concept with the practical approach of making use of existing infrastructure, namely the railway network, to reach out to the length and breadth of India.

The concept of blended learning emerged as a way of bridging the gap between exclusive face-to-face learning (with no technology component) and the use of technology as the sole means of delivering training (with no human interface). A blended learning programme is where a student learns through a combination of traditional personal interaction and learning technologies, designed by trainers to bring together the strengths of both methods in a way that complement each other.

Blended learning in the UK today largely follows a collaborative approach where the basics and functional skills are provided through digital aids, while softer skills, assessment preparation and career coaching are offered face-to-face. Blended learning has been successfully integrated across the further education sector and has proved particularly beneficial for this segment.

Another area where blended learning works in the UK is as an integral part of apprenticeship (traineeship) programmes, where blended learning is integrated with the traineeship so that the trainee basically covers portions of the course material through online modules and also has the benefit of parallel hands-on experience.

Through this report, we have tried to share best practice in this area in the UK as well as making suggestions as to how this could be employed to develop large-scale blended learning through existing infrastructure with employability as the focus.

We hope this document makes a valuable contribution to India's skilling programme and proves useful for all stakeholders in this vital sector.

Claire Tynte-Irvine
Head of the Prosperity, Economic and Trade Policy
British High Commission
New Delhi

List of abbreviations	
BHC	British High Commission
DGR	Directorate General of Resettlement
F2F	Face-to-face
FCO	Foreign and Commonwealth Office
FELTAG	Further Education Learning Technologies Action Group
MoD	Ministry of Defence
MOOC	Massive Open Online Course
MOODLE	Modular Object-Oriented Dynamic Learning Environment
MoU	Memorandum of Understanding
MSDE	Ministry of Skill Development and Entrepreneurship
NIACE	National Institute of Adult Continuing Education
NOS	National Occupational Standards
NSDC	National Skill Development Corporation
NVQ	National Vocational Qualification
NVQF	National Vocational Qualification Framework
SSC	Sector Skill Council
UK	United Kingdom
UKIBC	UK India Business Council

CONTENTS

ACKNOWLEDGEMENTS

EXECUTIVE SUMMARY

This report has been divided and printed in two volumes. While volume I provides an overview of the patterns of blended learning usage in the UK and India, volume II specifically highlights the models for implementation and the opportunities that exist for UK providers.

Study background

The Indian skills education system is on a cusp today. With the efforts of the Government to ameliorate the education and skill development deficit on one hand and the increasing demand for market-oriented skills on the other hand that needs to incorporate the triumvirate of Skill, Scale and Speed – there has emerged a clear mandate to look for innovative methods to achieve skilling targets. Given this need to embrace innovative models for skilling, the British High Commission and the British Council are working with the Ministry of Skill Development and Entrepreneurship, Government of India, to identify how the UK and India can work together to create a self-sustaining ecosystem for UK providers to deliver high-quality skills training at scale in India through a blending learning model.

Blended learning – an introduction

Blended learning is a mix of face-to-face classroom methods and learning beyond the classroom through collaborative work between learners. A blended learning programme is where a student learns through a combination of traditional bricks-and-mortar system and learning technologies, all of which are designed by trainers.

Blended learning in the United Kingdom

The UK skills space has undergone a learning curve that India can leverage upon in adopting blended learning pedagogy. Today, in the UK, blended learning is applied across various sectors like Beauty and Wellness, Banking and Financial Services, Hospitality, Healthcare, Security Services, Facility Management, Media and Entertainment, Building and Construction, Shipbuilding, Automobile, Electronics, etc. Other areas such as literacy and numeracy skills across sectors, soft skills and language, training of trainers, humanities and business and leadership also apply blended learning.

The blended learning space in the UK is able to work across sectors due to several practices that span dimensions like the ecosystem, funding pattern, clearly defined learning objectives, integrated assessment practices, etc. India can look to build from the learning and expertise of the UK for hosting large-scale blended learning at grass-root level.

Blended learning in India

As a young nation, India is going through learning in the skilling landscape. With the constantly changing economic contours which lead to the requirement of skills that need to reflect this, India has the momentous challenge of not only reflecting these requirements but also managing the sheer numbers of people who also need to be skilled. This has led to several efforts from the Indian Government to promote skill development. Vocational skilling in India is thus on a brink with several systemic changes in the offing including exploring opportunities like blended learning.

The skilling value chain in India typically has broad blocks that encompass various steps - from trainee mobilisation to placements. Across the skilling value chain the blended learning approach has been applied across course design, content

development, delivery and assessment and certification. These have to be translated to large-scale implementation at grass-root level.

Areas of intervention for facilitating large-scale blended learning at grass-root level

The contour for the areas of intervention will indicate actions that have been outlined for different stakeholders. Ultimately, these denote the strategies to prepare the Indian ecosystem to host large-scale blended models. The overarching objective of these areas of intervention is to create a long-term sustainable system that can grow from strength to strength. All the concerned stakeholders like the Indian government, Indian SSCs, Indian providers, UK providers, employers and trainees need to proactively participate to ensure successful implementation.

Operating models for blended learning

The models outlined for blended learning will have the following focus:

- Strategies for large-scale blended learning engagement model implementation with employability as the focus, leveraging existing infrastructure.

- Engagement models will not be a parallel stream for learning. Rather, this would be complementary to the Ministry of Skill Development and Entrepreneurship (MSDE) efforts.

- Outline opportunities for UK providers in these large-scale blended learning engagement models.

Two models have been proposed for implementation:

Model 1: The model will focus on imparting employability focused skills to trainees using grass-root-level blended learning pedagogy. This will be for the trainees who will undertake the self-study component either through the platform or in a contact centre. The contact centre essentially provides the same content as the self-study and trainees who do not have access to the platform at an individual level can visit a contact centre. These centres will leverage the existing infrastructure like a railway network. The face-to-face and collaborative components will be at the knowledge centre which would be NSDC training partners/SSC affiliated partners. After the training and assessments the trainees will be certified appropriately.

Model 2: The model will focus on creating a pool of master trainers. The beneficiaries here are ex-servicemen (ESM) who will be given the skill set to become a master trainer. Self-study will be through platform and contact centres can be leveraged infrastructure. On completion of the self-study components, the ESM trainees move to knowledge centres to complete the face-to-face and collaborative sessions. After the training and assessments the ESM trainees will be certified appropriately. In this model the UK provider expertise would be leveraged in crafting the training of trainer course and assessments. Joint certifications can also be explored.

The opportunities for UK providers in the above models are across capacity building of SSC and training institutions, implementation support, training the trainer, working with SSCs on assessment methodologies and certifications (where applicable).

VOLUME I

AN OVERVIEW OF BLENDED LEARNING IN THE UK AND INDIA

INTRODUCTION

Study background

The Indian skills education system is on a cusp today. With the efforts of the Government to ameliorate the education and skill development deficit on one hand and the increasing demand for market-oriented skills on the other hand that needs to incorporate the triumvirate of Skill, Scale and Speed – there has emerged a clear mandate to look for innovative methods to achieve skilling targets.

There have been several efforts in India to ensure that there is skilling and overall improvement in the skills landscape. The establishment of the NSDC, the promotion of several location-specific Centres of Excellence, setting of the Sector Skill Councils (SSCs), launching of several schemes that target youth for skilling are among the efforts that are feeding into this space. Simultaneously there have also been efforts to look for innovative solutions to solving the skill conundrum. In fact, the National

Policy on Skill Development and Entrepreneurship 2015 specifically looks at these solutions to bridge the human resource gaps in the country. This is where the concept of blended learning can be explored which offers a combination of the traditional 'brick-and-mortar' learning and simultaneously leveraging on the advantages of e-learning in education. This can aid in achieving the scale of learning needed across the geography in India for various skilling courses.

Given this need to embrace innovative models for skilling, the British High Commission and the British Council are working with the Ministry of Skill Development and Entrepreneurship, Government of India, to identify how the UK and India can work together to create a self-sustaining ecosystem for UK providers to deliver high-quality skills training at scale in India. A key area of interest is in blended learning courses to

provide a platform for large-scale, distributed, high-quality training that uses technology to deliver at the district level.

This study thus proposes a business model for UK providers that can tap the advantages of blended learning to ensure effective skilling leading to employability.

Scope of work

The scope of work for this engagement is as follows

- A business model that will use existing public infrastructure, such as India's vast network of fibre-optically connected railway stations or district level training centre, as a basis for developing large-scale blended learning courses.

- Identify practical and technical opportunities and constraints of such an approach and recommend a business model that will draw on best practices of the UK.

- Sectors suitable for a distributed learning model that are in high demand, relevant and will have most impact on learners across a wide geographical area such as modules targeted at the service sectors, entrepreneurship and managing small businesses, soft skills, languages and employability.

- Existing digital platforms and programmes that can act as a launch pad for such a model and assess the willingness of these agents to engage in such activity.

- Best practice in the design and development of large-scale blended learning skill development programmes in the UK and the capacity of these agents to adapt and deliver similar activities in India.

- Recommendation for the development of the programme with the Government of India to provide reach, impact and effectiveness for existing e-learning materials, assessment and certifications.

Scope of this report

This report will primarily outline a viable business model in blended learning for UK providers in India. The blended learning facilitated courses will be for vocational skilling which is employability-oriented. The typical duration of the courses would probably range from 3 months to 6 months. Thus, how the traditional 'brick-and-mortar' model for vocational skilling can be viewed through the prism of blended learning to enhance the scale and reach will be explored in this report.

Key stakeholders

This report will cater to the following audience:

- government stakeholders in India and the UK

- Ministry of Skill Development and Entrepreneurship

- UK stakeholders – FCO, British Council, Association of Colleges, etc

- key nodal bodies in the UK and India, including National Skill Development Corporation (NSDC), UK Commission for Employment and Skills, and SSCs

- UK training and assessment providers

- Indian training and assessment providers.

Objectives of this report

The objectives of this report are the following:

- introduce the concept of blended learning

- map the blended learning landscape in the United Kingdom

- map the blended learning landscape in India

- outline the areas of intervention for large-scale implementation of blended learning in India

- outline the contours of a blended learning model

- map opportunities for UK providers

- indicate the cost elements

- outline the implementation milestones for the way forward.

BLENDED LEARNING – AN INTRODUCTION

Learning with a good mix of theoretical rigour underpinning practical learning is the need of the hour in the vocational skill landscape. Across the globe, the dynamically changing contours of industrial and service sector requirements have made it imperative that skills evolve constantly to keep pace with the need to maintain competitive advantage.

Nations across the globe began to evolve their own systems of education and skilling which could empower learners to compete in the new markets. Apex skilling bodies were incubated, industry-specific sector skill councils were established which could bridge the gap between the industry and training providers, various models of skilling were developed, the assessments became holistic rather than a 'stand-alone' part of training.

However, as more solutions are being implemented, the core challenge of enhancing the employability and productivity still remain. And this is particularly exhibited in the context of vocational skills, i.e. the skill sets that directly feed into the economic output. This has led to the need for innovative models in the skill space. These innovative models typically need to marry the benefits of traditional skilling with evolving trends in the world. These trends are made possible and accommodated by the application of technology (leading to the rise of collaborative

learning) and the characteristic of learners who are looking for various avenues or methods of learning in increasingly personalised ways (departing from, or at least breaking the age-old format of, didactic instruction).

One of the models that have thus evolved is the concept of blended learning which could reap rich dividends with this employability-focused target group.

Brief introduction to blended learning concept

Blended learning – **introduction**
A blended learning programme is where students/trainees learn through a combination of a traditional brick-and-mortar system and learning passages enabled by learning technologies, all of which are designed by teachers/trainers, but where the enterprise of learning is supplemented by students who follow the learning outcome

identified by the teacher. The blended learning programme typically is within the control of the student's time, place and pace.

Thus, blended learning can be summarised as a combination of pedagogies to aid achievement of learning objectives. The key components of blended learning are:

- *Technology-enabled component:* Virtual learning and self-paced learning include e-learning, virtual classrooms, webinars and broadcasts, instant messaging, e-meetings, documents, webpages, surveys, online discussions, recorded lectures

- *Face-to-face component* includes classroom training, practical sessions and workshops

- *Collaborative learning* including social learning/ informal online communities, blogs, forums, discussion boards, Twitter, Facebook, Pinterest.

Figure 1: Blended learning – decoded

Face-to-face component
✓ Includes classroom training, practical sessions and workshop

Technology-enabled component
✓ Includes virtual learning and self-paced learning include E-learning, virtual classroom, webinars and broadcasts, instant messaging, e-meetings, documents, webpages, surveys, online discussion, recorded lectures

Face-to-face component

Technology-enabled component

Collaborative learning

Collaborative learning
✓ Includes social learning / informal online communities, blogs, forums, discussion boards, Twitter, Facebook, Pinterest

Achieve learning objectives

This being said, however, there are several key perceptions when it comes to understanding what constitutes blended learning. Table 1 summarises the perceptions and some facts related to blended learning:

Table 1: Perceptions about blended learning

Perceptions	Fact
Blended learning is constrained to skilling at higher levels like CFA, FRM, Leadership, etc	Blended learning is amenable across all roles and levels as it is an alternative learning methodology. The challenge is to find the right way to blend which is a new teaching skill.
Blended learning is not cost-effective	With the cost of technology coming down blended learning will be cost-effective provided the right platform is adopted according to the learning objectives. Much of the learning does not require expensive buildings or large campuses.
Blended learning is always through the internet and is the same for the entire course. In fact, it is synonymous with distance education	The word 'blended' indicates that the course has technology-enabled components as well as live in-class components. The model is as flexible as the requirements of the course.
Trainers are not required	No training can occur without a trainer. In blended learning, as outlined previously, the trainer becomes a designer, facilitator, supporter and encourager as well as the traditional role of ensuring each student progresses as expected.
Practical component will be compromised	The theory vs. practical mix is course-specific and blended learning does not necessarily mean any practical training. By blending the learning, the practical components are protected and the design can be used to prepare students for practical components.
Not many use social media that will aid in collaborative learning	Plenty of adult learners use social media and various applications like LinkedIn, e-Portfolio, etc. which showcase their professional expertise. Further, using social media is a 'work-ready' skill, as it is used extensively in the world of work.
Trainers might not be able to adapt to digital technology and are fearful	Trainers already use digital technology in some form or other in their course delivery (often drawing on the use of technology in their private and civic lives) and are more curious than fearful.

Models in blended learning

The blended learning approach has several 'models'. The models differ based on the needs and learning situation, course structure and job role it targets. The models outlined are just indicative of the nature of courses that can typically be adopted and customised according to the learning objectives. Some of the distinct blended learning models are shown in Table 2:

Table 2: Blended learning models

Model	Salient features	Typical target segment
Face-to-face driver	**In a Face-to-face model**, the teacher would take up the classroom training method. It is the teacher who will decide on the use of technology depending on the requirement and situation. It would usually involve working in computer labs or classes held outside the classroom during regular class hours.	This is usually a very basic form of blended learning typically utilised in schools and colleges
Rotation model	**The rotation model** will be on a scheduled basis with a combination of allotted times for classroom study and online learning. This is one of the popular models where students tend to rotate between the learning modalities of software learning and classroom learning.	This model is more empowered than the face-to-face driver. This model can be typically used in further education and skilling.
Flex model	**The flex model** is mostly done online with the teachers available as mentors for support as required by the students. The support by the trainers is provided either individually or in groups depending on the needs of the learners.	This model can typically be used when up-skilling is involved. Thus, there can be need-based interventions by trainers.
Labs model	**The labs model, or popularly referred to as the A La Carte model,** is where the students attend regular classroom learning and in addition to that take up at least one course online. This model gives students the opportunity to take up online courses with topics not offered in classroom learning and learn new concepts.	This model can be used in colleges and up-skilling.
Self-blend model	Students choose to augment traditional learning with an online component.	This model can be used in colleges and up-skilling.
Online driver	**The online driver** is where the course is completely delivered online. However, personal interaction with the teachers can be arranged if needed and requested by the student. The interactions happen occasionally and are less frequent than with other models.	The online driver model can be typically targeted at segments wanting to build skills like CFA, FRM, etc.

These models can be exhibited in terms of the maturity level of the trainee segment and the technology usage as depicted in Figure 2:

Figure 2: Blended models – maturity mapping

Legend: the transition from light to dark shading indicates the increasing maturity in terms of trainer independence and learner profile

The above representation is indicative and, according to the requirements of the course, the blend components can be structured.

Blended learning – key advantages
Blended learning as a pedagogy offers several advantages that need to be tapped to ensure high-quality skilling with large scale and reach. Some of these key advantages are:

- **Reach**: Blended learning has the advantage of reaching out to millions of students at a time compared to the traditional brick-and-mortar system

- **Action learning**: The move from **passive learning to active learning,** i.e. from classroom learning focus with didactic teaching towards more mixed formats, involving multiple activities for a learner

- **Flexibility:** The course materials are accessible to the students anywhere and anytime and the same applies for the trainers also

- **Collaboration**: The type of collaborative learning experience brings in success, understanding and satisfaction among the learners through the variety of activities and styles of course delivery.

- **Personalised**: The communication levels between the teachers and the students are more personalised and focused on solving learning challenges rather than being generic.
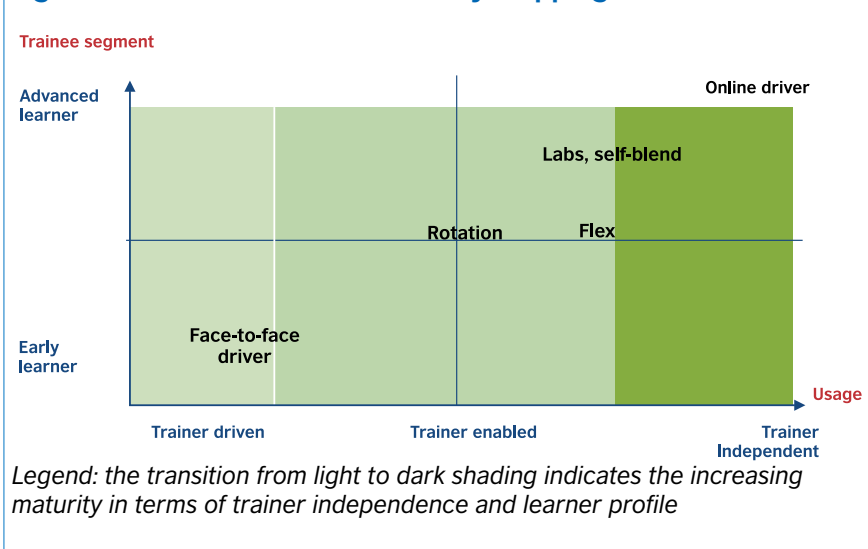
The students by the end of the course attain other required skills such as self-discipline, and self-motivation. In short, they learn not to be passive recipients when it comes to learning.

Blended learning – key challenges
Blended learning offers great opportunities in learning with scale, speed and its reach. This being said, there are also some challenges that needs to be highlighted in the case of blended learning:

- Course content preparation in blended learning needs a thorough understanding of the objectives.

- The technical aides (like platform, handheld devices, etc.) through which blended learning is offered are sometimes not easy to use and might malfunction or not find a network connection.

- Connectivity issues may hamper the course cohesion.

- Awareness levels of trainers of blended learning and their role in it, and the changing nature of teaching in a blended style.

- The preparation time of these blended practices are cited as a challenge.

International experience

Internationally, there are several nations that have embraced blended learning to varying degrees. The US, UK and other European nations account for the majority share in the fast-growing online education/training. The blended learning programmes were initiated in several sectors such as English language delivery, hospitality, healthcare, leadership and business, textiles and fashion, media, tourism, teacher training, customer service, administration, construction and engineering, etc. Some of the key areas of blended learning in the international context are shown in Figure 3.

As outlined prior to the above figure, UK is one of the mature markets globally in blended learning with several colleges and universities adopting the blended pedagogy as well as several organisations that design blended learning-related solutions. There are several strengths in the UK models of blended learning which can be studied and adapted to suit in the Indian context. The next chapter will briefly outline the scenario in the UK in the blended space and touch upon the strengths.

Figure 3: Blended learning across the world

UK

The UK is one of the mature markets globally in blended learning with several colleges and universities in the UK adopting the blended pedagogy as well as several organisations that design blended learning-related solutions.
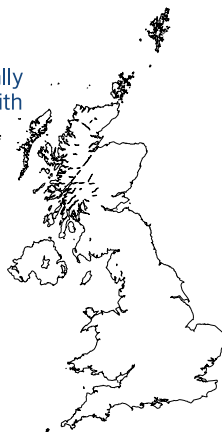
Singapore

Several companies use blended learning for training in sales and marketing, pesticide management, technical communication courses, etc. Several modes of delivery are used such as video presentation, audio programmes, blackboard learning.

Canada

The various methods of delivery include speaking sessions, practical lab sessions, video and audio visual, animation, text with narration, etc. through the various models of study such as face-to-face, flip, rotation, etc.

USA

Currently K-12 and higher education are the segments where blended learning programmes are happening.

Australia

Some innovative learning methods for Community services and Health, Construction and Property, Manufacturing industries, Transport and logistics, gas, agriculture, etc. are delivered through blended learning.

Indonesia

Blended learning programmes are used in K12, post K12, vocational education, MOOC, etc.

BLENDED LEARNING IN THE UNITED KINGDOM

According to Resource Development International (RDI) the demand for blended-based degrees in the UK went up by 38% between 2011 and 2012 and this is likely to keep increasing as many more UK universities and colleges now offer blended/online courses.
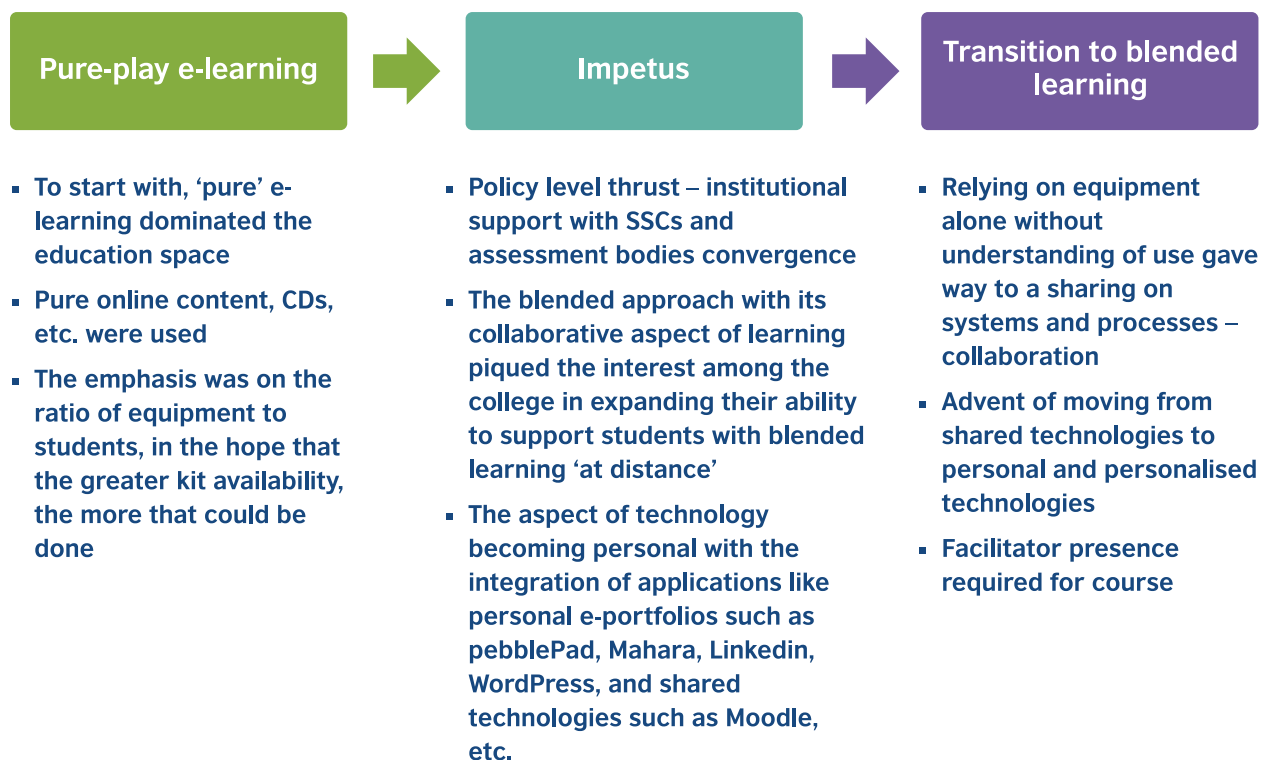
Evolution of blended learning in the UK

The journey that India is currently taking in discovering skill space has been traversed by the UK. The UK skills space has undergone a learning curve that India can leverage upon. This chapter thus outlines the evolution of blended learning in the UK, the ecosystem that makes this feasible, the sectors that UK is strong in and the way forward.

The UK story in adopting the blended pedagogy is exhibited in Figure 4.

Figure 4: Blended learning landscape changes in the UK

Pure-play e-learning	→	Impetus	→	Transition to blended learning

Pure-play e-learning
- To start with, 'pure' e-learning dominated the education space
- Pure online content, CDs, etc. were used
- The emphasis was on the ratio of equipment to students, in the hope that the greater kit availability, the more that could be done

Impetus
- Policy level thrust – institutional support with SSCs and assessment bodies convergence
- The blended approach with its collaborative aspect of learning piqued the interest among the college in expanding their ability to support students with blended learning 'at distance'
- The aspect of technology becoming personal with the integration of applications like personal e-portfolios such as pebblePad, Mahara, Linkedin, WordPress, and shared technologies such as Moodle, etc.

Transition to blended learning
- Relying on equipment alone without understanding of use gave way to a sharing on systems and processes – collaboration
- Advent of moving from shared technologies to personal and personalised technologies
- Facilitator presence required for course

The UK was in fact one of the early adopters of e-learning. Stand-alone e-learning solutions were seen as a cost-effective solution to providing training. However, relying on equipment alone without understanding of its use gave way to a sharing on systems and processes, on the basis that an application that worked in one college would work in every college. With the movement away from shared technologies to personal and personalised technologies there was a requirement to rethink the effectiveness of pure e-learning solutions. These challenges led to exploring for solutions that could tap into the growing advent of mobile technologies and personal software in further education, providing students with content and technology devices they were able to carry with them. Thus, the blended learning alternative was explored in the UK.

Two other factors that gave further impetus to blended learning included:

- The blended approach with its collaborative aspect of learning piqued interest among colleges who wanted to expand their ability to support distant-learning students.

- The aspect of technology becoming personal with the integration of applications like personal e-portfolios such as PebblePad, Mahara, LinkedIn, WordPress, and shared technologies such as Moodle. in education.

The adoption of blended learning has resulted in changes in the skilling space. In 2013, about 20% of training hours (specifically corporate in-house training) were administered through online components, with this percentage predicted to rise in the coming years especially in the public sector. In terms of employers, this translated to 50% of employers training 50% of their employees online.

Also, according to Resource Development International (RDI) the demand for blended-based degrees in the UK went up by 38% between 2011 and 2012 and this is likely to keep increasing as many more UK universities and colleges now offer blended / online courses[1].

An extension of this has been the meteoric rise of the MOOC (Massive Open Online Course) as a mechanism for learning using the web. With the ever-growing opportunities in this space, it is therefore not surprising that the UK government is also encouraging educational establishments and businesses to be more innovative and use technology in education delivery. It is in fact this thrust on holistically integrating a blended aspect with traditional education that is bringing educational dividends in the UK.

Amidst this transition towards acceptance of digitisation of education, the Further Education Learning Technology Action Group (FELTAG) movement in the UK gave further impetus to integrating technology with education. Its recommendations in October 2013 spelt out the following[2]:

- How digital technology helps achieve ambitions for education

1. Source: How is e-Learning in the UK Shaping Up – October 2013

2. Source: FELTAG report

- Identification of five barriers that hindered unfettered progression.

It was followed by a paper from the Department of Business. Innovation and Skills by way of response explaining how the barriers would be removed.

The FELTAG movement thus clearly outlined stakeholder-specific recommendations through the report. The key dimensions covered were Learners, Employers, FE and Skills providers, Regulation and Funding.

The role of the FELTAG movement in the UK in furthering the blended learning cause is impressive. But where the FELTAG analysis truly helps within the context of this study is how it defined the FE learner characteristics.

The FELTAG clearly defined that the essential characteristic of learners in the FE sector is diversity. FE students:[3]

- learn in a wide range of places, including colleges, workplaces, and private training providers, and are funded in distinct ways

- often come from disadvantaged backgrounds and challenging circumstances

- frequently have not achieved highly at school, and may have English as a second, or additional, language

- are aged between 14 and over 65, on courses between entry level and NVQ level 5, which may be 'niche' (such as violin-making) or very general (like mathematics), academic or practical.

The clarity with which the FE segment has been defined enabled them also to highlight other factors like access and use of digital technology among the students and teachers. On deeper analysis this strand of thought identified by FELTAG also echoes the target skilling segment in India. This identification of the diversity and digital comfort of this cohort group by the FELTAG is in line with the current Indian context also. It is the nature of personalised learning, supported by customised technologies delivered through a blended model that allows such diversity of effort in meeting personalised needs, approaches and requirements.

Thus, the FELTAG divided its focus into thematic work streams which may also be applicable in the Indian context. These work streams are highlighted in the box:

1	Horizon scanning
2	Investment and capital infrastructure
3	Regulation and funding
4	Workforce capacity
5	Employers
6	Learners

Thus, the FELTAG's observation – 'Learning technology, when astutely used by teachers and providers, can improve FE learners' chances and successfully influence what students do to learn, so that every student can reach their learning potential' – is the vision for the blended learning sector in the UK.

Today, various bodies across the country are slowly but surely trying to integrate technology in FE and skilling. An example of the view of NIACE (National Institute of Adult Continuing Education) is outlined in the next section.

---

3. Source: FELTAG report

Figure 5: Implementing FELTAG – NIACE
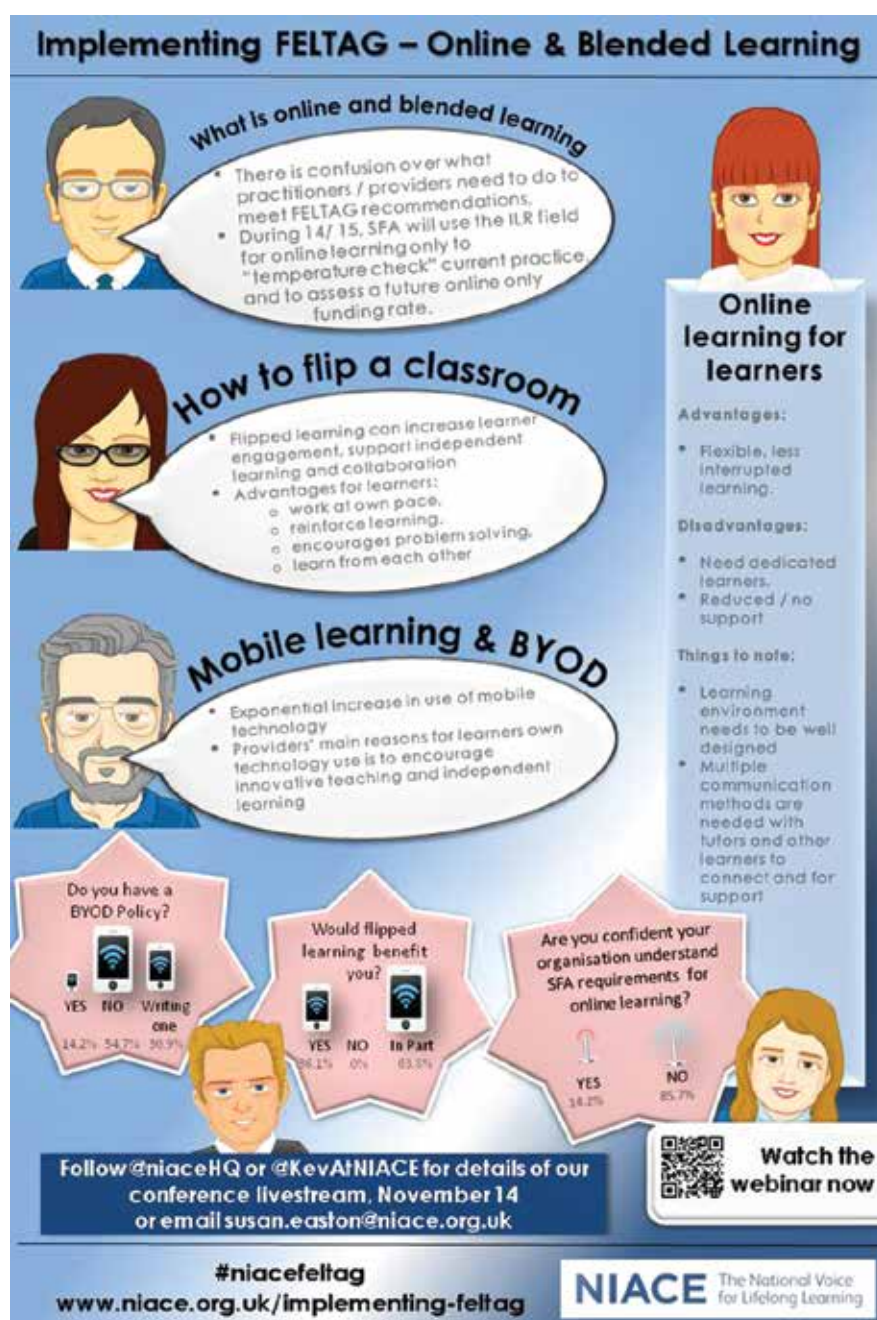
Source: NIACE

Key sectors amenable to a blended learning application in the UK

This section profiles the economic background of UK, key sectors that are critical to the economy's growth and the subsequent application of blended learning objects.

The Gross Domestic Product of the UK was 2.6 billion GBP (in 2014) and the overall economy is on the road to recovery. The labour market has shown signs of resilience, with a decrease in unemployment rates and increasing employment opportunities.[4] In recent decades there has been a marked shift in the UK economy away from manufacturing towards services. In particular, there has been a shift towards knowledge-intensive services which now account for 34% of UK output and 29% of total employment. Thus, key sectors that are growing in the UK include Knowledge and Services (including the Education and Financial Services), Construction, Health and Social Care and Manufacturing among others. However, a key aspect that has been highlighted in several research documents is increased efforts required to boost skill shortages and labour productivity. There are particular issues in providing a basic level of skills to those who have been traditionally hard to engage in education.

---

4. Source: OECD UK Economic Survey 2015

The UK Commission's Employer Skills Survey published in January 2014 highlights that the number of skills gaps is at 1,409,900 and the percentage of establishments with no fully proficient staff is at 15%. Another interesting finding from this research is that 71% of employees predict that their skills requirement will change in the next 12 months.

With a dynamically changing economy which is looking to bridge the gaps in the skill space and grow simultaneously, the need for embracing blended pedagogy across these sectors for giving market-relevant skilling has become the need of the hour. Thus various blended learning objects have been designed across several industries (illustrative list given below) in line with the overall economic direction:

Sectors

- **Beauty and well-being**
- **BFSI – Credit control and insurance**
- **Hospitality**
- **IT / ITeS**
- **Healthcare**
- **Security**
- **Facility management**
- **Media and entertainment**

Simulation

- **Building and construction**
- **Shipbuilding**
- **Automobile, auto component, servicing**

- **Electronics**

Other areas

- **Literacy and numeracy skills across sectors**
- **Soft skills and language**
- **Teacher training**
- **Humanities**
- **Business and leadership**

Some of the key players in blended learning and assessment include NOCN, Kineo, City and Guilds, Bottomline Performance, Epic Learning Group, Sweet Rush, Allen Interactions, Learnnovators, Commelius Solutions, Atlas, ILX Group, Abbras and Mintra Training, e-GNCS, Upside Learning, Clearpoint Interactive Health Education, Aims Digital Learning Solutions, TUV Rheinland Private Limited, U Aspire Inskills, Skill Set Limited, among others.

There are also organisations that offer blended learning strategies to fellow institutes or firms like Learning Light, Premier Partnership, Brightwave, CIPD Training, ExcelSoft, ILT Solutions, etc. There are also institutes like Dudley College, City and Islington, Vision West Nottinghamshire College, Westminster Kingsway College, Loughborough University, University of Bradford, Kings College London, Trinity College of Music, among others, that offer specific learning objects for courses using blended learning.

Thus, blended learning is either

applied as a specific collaborative model or in the arena of apprenticeship.

Blended learning applications in the UK

Blended learning in the UK today largely follows a collaborative approach to learning where the basics and functional skills are provided via digital aids. The learning objects focus on specific modules like food safety, healthcare assistance, functional skills (math, English, IT), first aid basics, health and safety, literacy and numeracy modules, among others. Great emphasis is placed on literacy and numeracy skills in particular, which constitute a huge set of learning objects in their own right, in some instances extending to complete online but supported as a blended course by colleges.

The basic idea here is to deliver cognitive domain learning online as it is the most sensitive to being delivered successfully through technology. It allows the cognitive and psychomotor domain to be tackled in class, once the cognitive is mastered, so that the student is well aware of the basics before stepping in to face the trainer in the classroom/lab. This works across industries as well as educational institutions. This model is typically used in FE segments in colleges and other educational institutes.

A sample of the type of blended models is highlighted below:

Blended Learning at Dudley College

Dudley College has been enabling student learning through the use of technology and has invested heavily in its use and integration. Information and Learning Technology (ILT) now impacts upon all curriculum areas in a positive way, including but not limited to:

- bksbLive for English and Maths provision
- digital capturing of assessments (audio and video)
- e-book platforms
- electronic Individual Learning Plans (eILP)
- integrated and blended use of the Virtual Learning Environment
- online communication and collaboration tools
- curriculum-specific tools such as online simulations
- online video integrated into learning

- over 300 'drop-in' PCs for students to extend their learning
- use of interactive whiteboards in the classroom
- use of smart devices and mobile apps for assessment and learning
- increasing use of touch-screen and tablet technology.

Impact of initiatives:

- The effort put into increasing student usage has had significant impact – between September to December 2011 there were 616,064 accesses by students, but in the same period in 2013 this rose to 1,048,097.
- The use of the eILP across the college has increased by 60% over a three-year period to over 25,000 student accesses over the last quarter of 2014.

Source: Dudley College

Another model where blended learning works in UK is the apprenticeship (traineeship). The traineeship is an education and training programme with work experience that unlocks the potential of young people and prepares them for their future careers by helping them to become 'work ready'. Designed to help young people aged 16 to 24 who don't yet have the appropriate skills or experience to complete an apprenticeship or who are simply not 'work ready', traineeships provide the essential work preparation training. It prepares students with the necessary English, maths and work experience needed to secure an apprenticeship or employment[5]. Blended learning objects are integrated with the traineeship where the trainee basically covers portions of the basics through the blended modules and also has the parallel hands-on experience.

Ecosystem for blended learning implementation

The blended learning space in the UK is able to work across sectors due to several practices that span dimensions like the ecosystem, funding pattern, adoption of blended platforms, integrated assessment practices, etc. The next table will essentially outline some of the features.

5. Source: www.gov.uk/government/collections/traineeships-programme

Table 3: UK blended learning ecosystem

Dimension	Ecosystem
Streamlined funding	The Skills Funding Agency funds skills training for further education (FE) in England. It supports over 1,000 colleges, private training organisations, and employers with more than 4 billion pounds of funding each year. The SFA's mission is to ensure that people and businesses can access the skills training they need to succeed in playing their part in society and in growing England's economy. This is done in the context of policy set by government and informed by the needs of businesses, communities and regions, and sector and industry bodies. In fact, in the case of blended learning a portion of funding to develop learning objects is also borne by the government.
Ecosystem	The ecosystem of having the SSCs and assessment bodies report to the apex decision-making bodies like the UK Commission for Employment and Skills and the Federation of Industry Sector Skills and Standards with regard to skilling ensures that there are synergies that are exploited. This enables the assessment aspect of skilling to also have a dedicated vision which is in line with the NOS developed by the SSC. These are vetted in turn by the apex bodies.
Clearly defined learning objectives	The learning objectives and the associated activities are clearly defined aligned to the national standards.
Integrated assessment practices	Assessment by itself follows a streamlined approach in the UK. The assessment bodies ensure that the assessment aids are in line with the NOS developed by the SSCs. Thus, there are clear assessment standards that are developed and implemented which ensure that there is consistency across the respective sectors and job roles. In some assessments, technology can be used to automate the process of achievement and progression.
Adoption of learning platforms	The blended learning space in the UK has adopted learning platforms like Moodle that can host content and function as effective learning management systems. Also, usage of applications like e-portfolios in education will be the next big development in UK education in further and higher education.
Thrust on integrating technology in further education	Buoyed by the FELTAG movement and its subsequent recommendations there are new imperatives to integrate blended aspects in further education. Colleges and educational institutions are making dedicated efforts to build e-content in-house or source relevant content and customise the same.

The ecosystem showcases the overall synergy in the ecosystem, funding and learning outcomes that translate into a clear vision for integrating blended learning into further education.

Why look at the UK?

The differences between the UK and India across different genres can be chronicled at length. But where similar strands can be clearly looked at is in blended learning and how it can be used in the context of further education to ameliorate the overall skill space. The core challenges that India is facing in the skill space today are similar to those being faced in the UK and are different only in terms of scale and connectivity, both of which have technical solutions which can be jointly explored.

Some of these salient points are:

- overall national economic contours are changing
- the need to incubate skills to keep pace with the above change
- the need to enhance productivity and employability of the workforce
- the FE demographic is diverse
- trainers are curious on how technology can be integrated into learning frameworks
- employers are looking to experiment.

India can look to build from the learning and expertise of the UK for hosting large-scale blended learning at grass-root levels that can be market-relevant to enhance employability opportunities in line with the needs of the economy. Going forward, this report will map the skill context in India and the blended learning practices to set the context for further analysis and the engagement model.
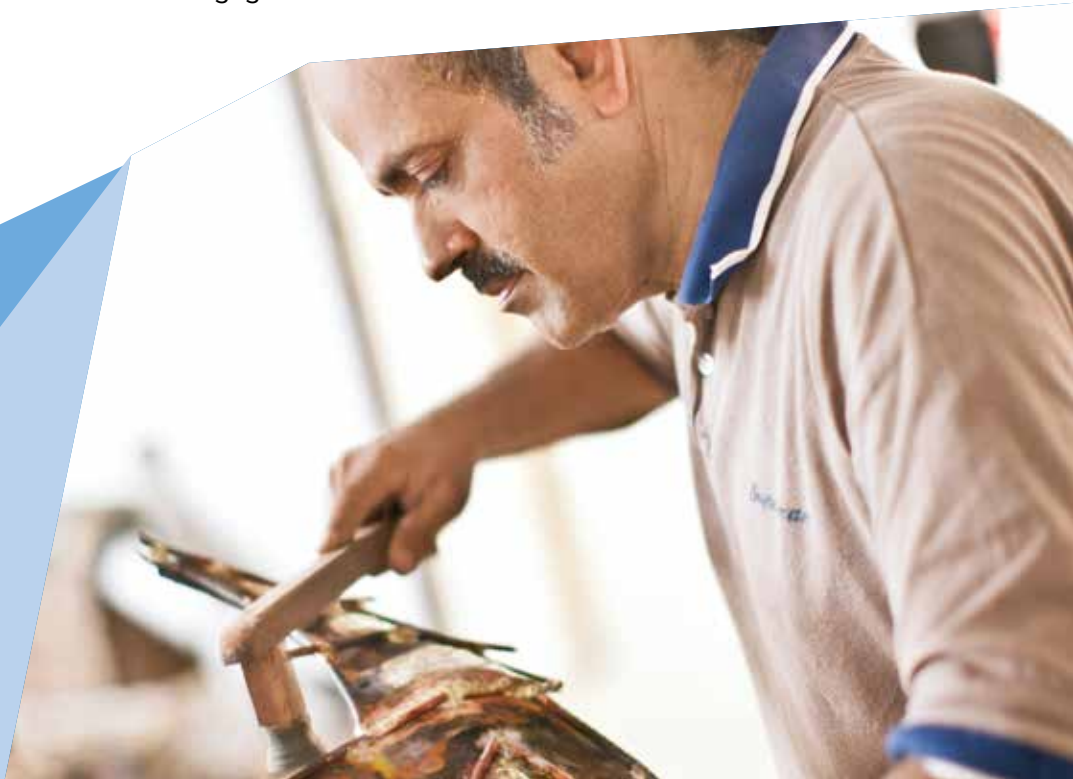
BLENDED LEARNING IN INDIA

This chapter primarily outlines the skill context in India and also highlights some of the skilling models that apply the blended approach.

These lead to the aggregation of key stakeholder feedback which sets the context for the identification of areas of intervention for facilitating large-scale implementation of blended learning.

Skill context in India

As a young nation, India is going through learning in the skilling landscape. With the constantly changing economic contours which lead to the requirement of skilled manpower, India has the momentous challenge of not only reflecting these requirements but also managing the sheer volume of people who also need to be skilled. This has led to several efforts from the Indian Government, including the establishment of MSDE. Various Ministries through schemes aim to bridge these qualitative and quantitative gaps. Vocational skilling in India is thus on a brink with several systemic changes in the offing.

Today, recognising the need for

convergence of these efforts and also to build an institutional framework that works across the skill spectrum with unified vision, the Draft National Policy for Skill Development and Entrepreneurship 2015 has clearly outlined the envisaged roles and responsibilities of key entities which are poised to rejuvenate the skill landscape in India.

The institutional framework is in place to effect the changes that are required in the way skills are conceptualised and delivered to the target beneficiaries. These changes are driven by the demand-supply system scenario in the nation. While on one hand the study by the National Skill Development Corporation (NSDC) indicates that a net requirement of 11.92 crore skilled manpower would be required in twenty-four key sectors by 2022, the country presently faces a dual challenge of severe paucity of highly trained, quality labour, as well as non-employability of large sections of the educated workforce who possess little or no job skills.

In terms of absolute numbers

this qualitative supply gap translates to only 2.3% of the total workforce in India having undergone formal skill training.[6] Dissecting this number further throws light on the following:[7]

- The total workforce in the country is estimated at 48.74 crore, of which approximately 51% is in the non-farm sector.

- Of these 24.9 crore non-farm workers, a maximum of 10% would be formally trained and skilled and approximately 22.4 crore would be either skilled through non-formal channels or unskilled.

- Out of these, it is estimated that approximately, 15.7 crore would be in the age group 15–45 years who need intervention-based skilling efforts.

- In addition, the number of people who enter the workforce age group every

6. Source: National Policy for Skill Development and Entrepreneurship 2015

7. Source: National Policy for Skill Development and Entrepreneurship 2015

year is estimated to be 2.6 crore.

- Assuming an average labour participation rate of 65% (both male and female), at least 1.70 crore will enter the workforce and all of these need to acquire skills.

- This will add another 11.9 crore persons to be skilled in the next seven years and, in addition, 30.7 crore of existing farm and non-farm sector workforce will need to be skilled, up-skilled or re-skilled.

Thus, as stated previously, the magnitude of the skill challenges in India encompass both the qualitative and quantitative aspects which need out-of-the-box solutions that can complement the current efforts.

Why blended learning in India?

As outlined previously, India is a young nation that is finding her feet in skilling. With the enormous skilling mandate that looks to tap into the demographic dividend, there is a conscious shift in the mind-set of all the concerned stakeholders that there is a need to look beyond the traditional approach to skilling.

With the need to look at innovative methods to ensure there is quality and timely skilling, blended learning has emerged as a viable, if not essential, option which can be explored. This

assumes greater significance in India with the need to build skills which are market-oriented and that enhance the employability of the trainee in a personalised manner, with speed and scale.

Achieving this target needs a strategy that complements the traditional approach with respect to skilling and embracing innovative practices. Blended learning in the Indian context will pave the way for quality and speedy learning solutions.

Some of the key drivers for blended learning in India include:

Emergence of 'personal' technology: The preference towards using equipment/technologies increases among the people who want customisation and self-expression*.*

Managing diversity: The learner categories are mixed and diverse across geographic locations, so blended learning study provides a variety of activities involved in the study leaning towards the preference of the students.

Need for industry-relevant course: With the need for high-quality, market-oriented skills, blended learning offers standardised modules that ensure the trainees are able to get the right skills.

Presence of industry clusters: There are formal and informal clusters in India. Blended learning can aid in peer-to-peer learning*.*

Resource constraint: The skilling challenge is of a magnitude that needs tremendous resources in terms of capacity creation, teaching aids and trainers. Usage of blended learning ensures that capacity is created where it is required.

The drivers highlighted above also address several of India's skilling challenges namely:

- a lack of adequate training infrastructure

- the lack of an adequately

skilled trainer pool

- a need for market-relevant courses

- a need for enhanced penetration of the courses in India

- a need for standardised content and delivery mechanisms

- the lack of a clear and defined policy towards measuring learning outcomes.

The above challenges in the Indian context echo some of

the challenges in the UK skill landscape namely:

- the diverse learner segment

- employers looking for an industry-ready workforce

• the need for scale in the various initiatives.

Thus, there exists a clear link between the skilling challenges identified in India and what drives blended learning as a pedagogy. This synergy can be explored by designing a viable blended learning model in India which in time can become a sustainable method for large-scale skill building.

5.3 Blended learning in India

The blended learning pedagogy in the skilling domain is at a nascent stage in India. Though applied widely in the education segment and higher-order skill segment (including corporate skilling), when it comes to the skills domain this pedagogy is at an early stage.

Some of the key reasons for this are the following:

• Geographically diverse set of skilling requirements depending on industry profile

• Diverse profile of the youth who seek skills in terms of their educational qualifications, socio-economic background, etc.

• Inadequately developed labour market information system on the supply side

• Inadequate trainer quality for skilling initiatives

• Assessment mechanisms that do not have a clearly defined objective

• Evolving national occupational standards

• Lack of clarity at the curriculum stage on defining what exactly the learning outcomes are.

Though these diverse challenges are anticipated in the blended learning landscape in India, there are some models that are operational using the blended approach. This section thus captures some of these models across the skilling value chain in India.

The skilling value chain in India typically has broad blocks that encompass various steps from trainee mobilisation to the end placement. Across the skilling value chain the blended learning approach has been applied across the following key blocks (the same has been highlighted with in the figure) in India:

1. Course design
2. Content development
3. Delivery
4. Assessment and certification

Figure 6: Typical skilling value chain in India
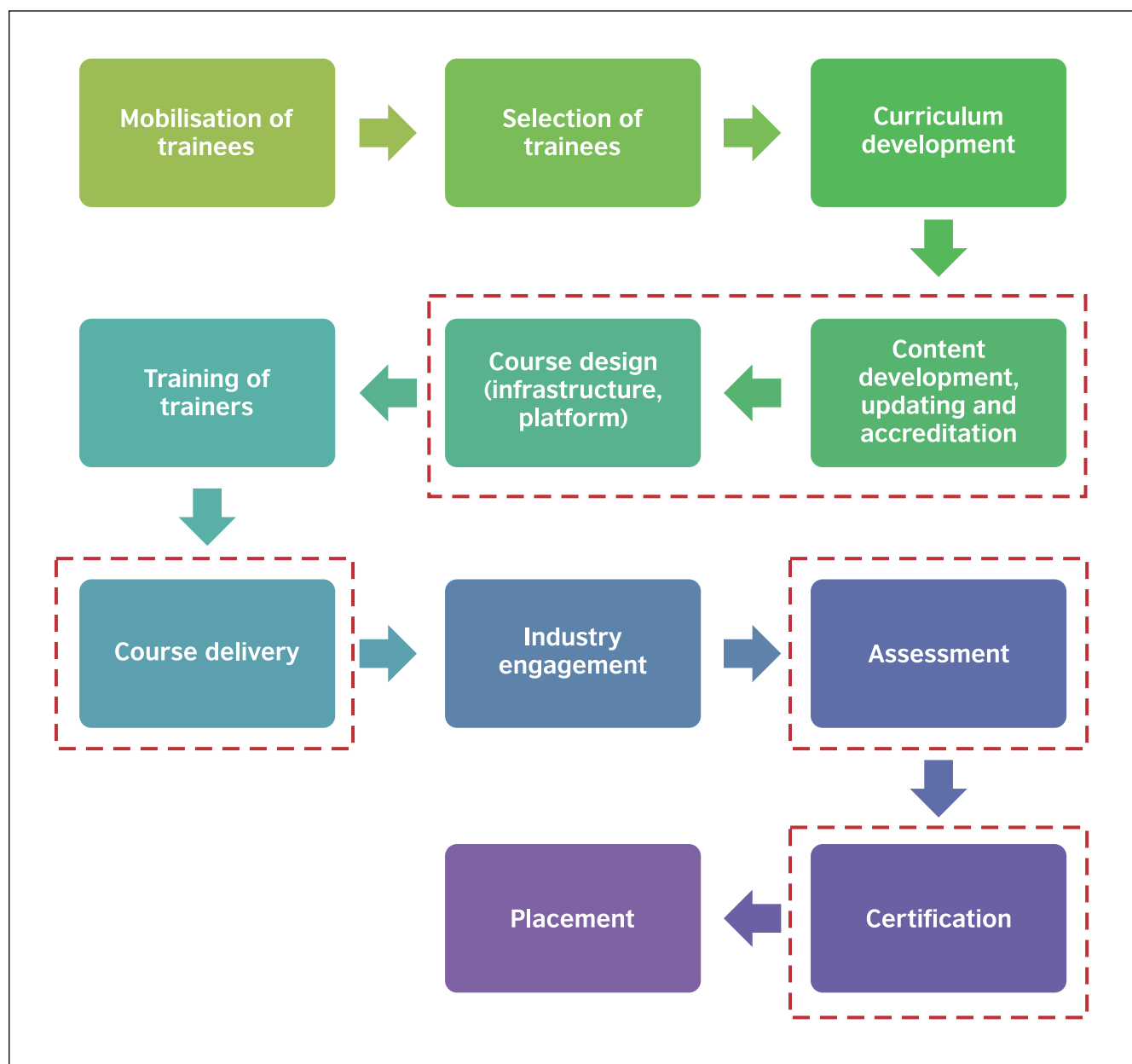
Some of the illustrative models from organisations using blended learning pedagogy in India have been showcased.

Skill Train

Registration:

The learner can choose a course based on their interest and eligibility from the entire menu of courses available to them. If the learner needs help in deciding on a course, he/she can call the Counselling Helpline number and seek guidance. Once the learner decides on a course, he/she can proceed for registration – which is basically done free of cost.

Course access:

Once the learner registers, he/she can access the course content online. The audio and video content can also be downloaded onto a removable data drive or to the learner's mobile phone thereby enabling the learner to access the audio/video content anytime, anywhere and any number of times. Thus, there is no restriction on how many times a learner can watch the audio/video lesson.

Evaluation:

After every three or four lessons, the learners need to take a self-evaluation quiz. The quiz can be taken online or through a mobile phone. If the learner takes it online, the multiple choice questions can be accessed through their respective logins. If the learner wishes to take it on a mobile phone, he/she can send an SMS to the SkillTrain Exam Helpline along with the course code and unit code. Then, multiple choice questions will be sent by SMS to the learner. The learner can then respond with the respective answer choices through SMS. On completion of the test, the scores will be updated in the learner's profile.

Practical aspect integration:

After every few lessons, the learners will be recommended to undergo practical training. SkillTrain has several partners who offer practical training to SkillTrain learners. The learner can choose his/her nearest SkillTrain certified vocation practice centre, reserve a time-slot in the respective centre, pay the hourly practical fees and undergo practical training. The practical fees can be paid either through 'Money Order' or through any of the 'State Bank of India' branches. Alternatively, SkillTrain learners can also procure a pre-paid card for a denomination of their choice and use it to pay for their practical training.

Certification and placements:

SkillTrain learners have a choice of appearing for the Government of India Modular Employability Skills examinations provided they are eligible for the same. Learners who meet the eligibility criteria can apply online and select a centre of their choice to appear for the examination. The respective exam fees can be paid either through 'Money Order' or through any of the 'State Bank of India' branches or through the SkillTrain pre-paid card. All successful candidates will be issued certificates by National Council of Vocational Training (NCVT), Government of India.

Based on the exams the students are helped in getting placed or are encouraged to take up entrepreneurship.

Source: Discussion with Skill Train

Knorish Frameworks

Knorish Frameworks envisages reaching out at the grass-root level through the use of technology. The core idea is to customise the base content and host it on their online platform. This localised content via the platform can be used to train even in villages.

Knorish is currently offering courses in design, entrepreneurship, IT, sales and retail spheres. According to the course structure the assessments are structured and the trainees take it.

Source: Discussion with Knorish Frameworks

Liqvid

Liqvid aims to make vocational learners more employable across sectors by using a bilingual (Using local language / mother tongue) approach to deliver the English language training and by leveraging on technology such as:

- LAN-based
- tablet-based
- mobile-based (IVRS and SMS).

This is envisaged across 15 sectors from the 20 priority sectors identified by NSDC and create domain-specific content for each such sector. This is delivered through a combination of classroom and self-practice sessions.

Source: Discussion with Liqvid

Mettl

Mettl offer the following products:

- Recruitment Assessments
- Test Library
- Psychometric Tests
- Programming Tests
- Aptitude Tests
- Certification Platform
- Remote Proctoring

Mettl is currently offering their various assessment-related products to around 1,000 corporates and is also working with 16 SSCs in India.

Source: Discussion with Mettl

Qustn Technologies

Qustn is engaged in assessments as well as training delivery. This organisation hosts content prepared by entities (corporates or institutes) on their platform which can be used for training purposes.

The trainers engage with the trainees for need-based issues. On the completion of a set of modules, proctored assessments are conducted for the trainees.

Source: Discussion with Qustn Technologies

The key highlights above showcase a variety of models that are being explored both in training as well as assessments.

At present, the key sectors and revenue streams of the above as well as other models that are used in this space are summarised in Table 4.

Table 4: Blended learning applications - Sectors, Target Segment and Revenue Model – Summary

Key sectors of operation	Trainee segment	Current revenue model of training providers
Sectors • Retail • IT • Hospitality • Service roles – repairing, customer facing, sales • Healthcare **Other areas** • English language and soft skills • Entrepreneurship development • Designing – CAD, CAM and creative designing • Training of trainer	1. Youth (can be school drop-outs, diploma holders, vocational skilling aspirants) – 18 to 35 years in tier 2, rural cities 2. Employees already working in relevant sectors in organisations (including trainers)	**Training fee -** Per student basis depending on number of hours **Platform licence fee -** Based on type of platform **Assessment fee -** Based on number of assessments **Corporate licence fee -** Based on number of corporate licences per user per month **Institute licence fee -** Based on number of learning objects to be used

But prior to the implementation, there have been some areas of intervention as well as key feedback that have emerged from the stakeholders. Based on IMaCS' interaction with a cross-section of stakeholders the key points of view that have emerged with respect to the aspect of implementing large-scale blended scale for skilling purposes have been summarised. The feedback gives directions as well as posing relevant questions that need to be addressed before conceptualising and creating a model for implementation. The stakeholder-wise feedbacks are indicated in Table 5.

Table 5: Key stakeholder feedback

Stakeholders	Key feedback
Indian government	• Blended learning is not necessarily new to India • Blended learning could be the approach that can aid in fulfilling the huge skill challenge in India • Technology should not be the focus. Rather look at skilling as an ecosystem • Across roles blended pedagogy can be explored. A case in point: assembling of aircraft using only blended learning has been done
Indian providers	• Need for policy on applying blended learning in skilling • Training of trainer is one of the key areas of opportunity for UK providers • Base content can be given or subject matter experts can be used from UK • Customisation of any initiative from international partners is a must • International partners should look for long-term sustainable partnerships and not look for short-term benefits alone
UK providers	• Focus should be on creating coherent learning outcomes • Assessments system have to be more rigorous • The policy-making bodies need to consciously study the international models in the blended landscape and then look for adaptation • Training of trainer, literacy, numeracy, soft skills across sectors are some of the straightforward opportunities • As a pedagogy, blended learning can be applied across sectors but we might have to look at phased approach to implementation • With technology becoming integrated with aspects of life, blended learning could be the way forward • Blended pedagogy clearly means that the trainer is not replaced

Stakeholders	Key feedback
NSDC	• The skill ecosystem's maturity needs to evolve for blended model in skilling • Training of trainer and content are two components which are important in the blended ecosystem • Mobile platforms can be explored as people in India have access to phones • Blended learning in the long run can target both technical and soft skill roles
Indian SSCs*	• Blended learning pedagogy is role agnostic • Government should find a way to recognise on-the-job learning as this segment can use blended learning well • Models can be designed where the SSCs can offer specific inputs – something like a PMU • The model should have a location-specific approach as in India there are tremendous differences between city and tier 2 areas

SSCs interfaced with include Capital Goods, Retail, Gems and Jewellery, Auto, Tourism and Hospitality, Construction, Electronics

Some of the points raised above indicate a need to create an ecosystem that can aid in the incubation and flourishing of sustainable blended learning models for skilling. The next chapter will thus detail the key areas of intervention for stakeholders for facilitating implementation of large-scale blended learning models for skilling.

AREAS OF INTERVENTION FOR FACILITATING LARGE-SCALE BLENDED LEARNING AT THE GRASS-ROOT LEVEL

The contour for the areas of intervention will indicate actions that have been outlined for stakeholders. Ultimately, these denote the strategies to prepare the Indian ecosystem to host large-scale blended models. The overarching objective of these areas of intervention is to create a long-term sustainable system that can grow from strength to strength. What needs to be understood is that the action points indentified and stated are interrelated and the ideals are closely woven together. All the concerned stakeholders need to proactively participate to ensure successful implementation.

Government

The government is a nodal stakeholder in the envisaged implementation. The directions in terms of the policy and enabling the ecosystem to evolve are where the government needs to play a role. Already the wheels have been set in motion with the launch of the National Policy for Skill Development and Entrepreneurship 2015 which identifies the ten enablers for skilling:

- Aspiration
- Capacity
- Quality
- Synergy
- Mobilisation and Engagement
- Global Partnerships
- Outreach and Advocacy
- ICT Enablement
- Development of Trainers
- Inclusivity

Though each of the enablers identified does set the context on what needs to be done to rejuvenate the skill space, there are several key initiatives that stand out in the overall context of blended learning.

Figure 7: Stakeholder map
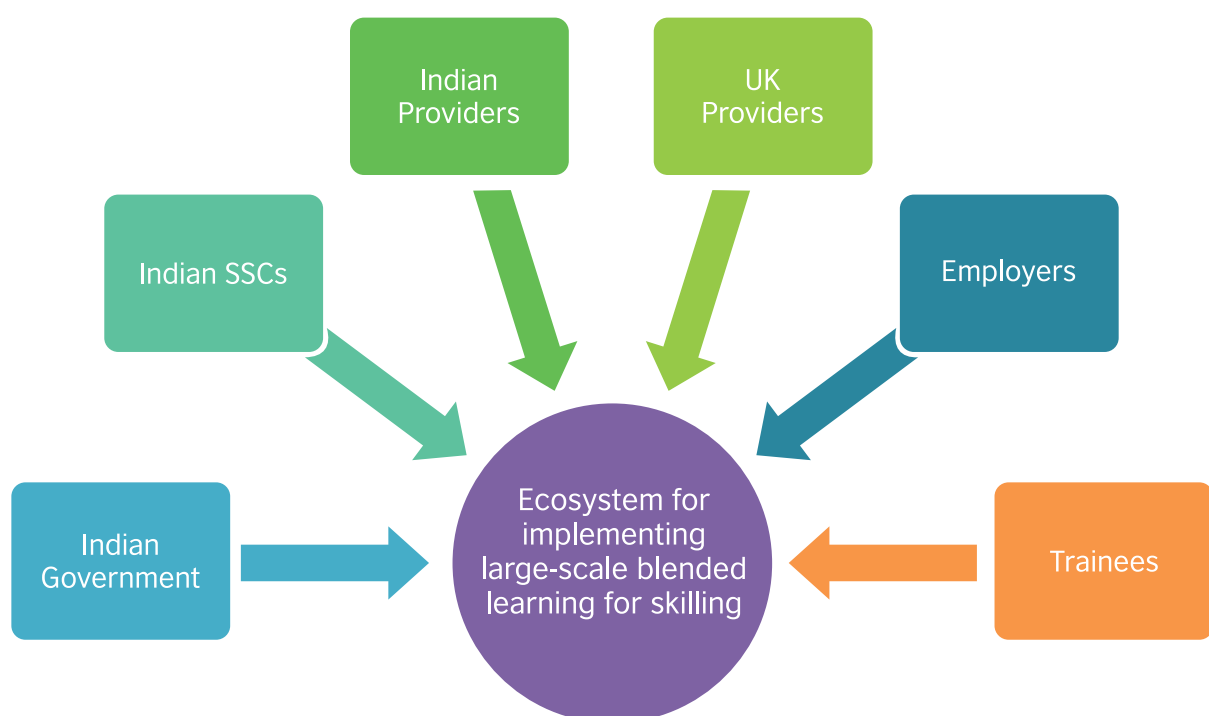
Key standout elements – National Policy on Skill Development and Entrepreneurship 2015

1. *ICT enablement:* Stating the fact that the brick-and-mortar approach alone may not yield the desired effect, the policy states that the government will also look to support innovative products, solutions and models that address critical gaps in the skills ecosystem in an effective manner. It further states that 'An open platform for e-content on skill development will be created where further curated content will be crowd sourced. Mechanisms will be put in place to incentivise high quality content aggregation. This platform would provide standardised training content to be used by Trainers/ Training Institutes for delivery of Vocational Training. Stakeholders will be encouraged to develop Massive Open Online Courses (MOOC) and virtual classrooms for easy access and convenience. Creation of blended learning environments to deliver high quality vocational training in under-served regions of India will be promoted'.

2. *Capacity leverage:* India has in place hard and soft infrastructures that are not always utilised to their full capacity. The policy highlights the case of over 10 lakh institutional buildings that are used for fewer than 40 hours a week. Also, it states the availability of 65,000 kilometres of railway network in the country with over 8,000 stations, of which a large proportion have adequate infrastructure facilities, electricity supply and an extensive optical fibre cable (OFC) network.

3. *Quality:* Adoption of the 'One Nation One Standard' where parameters like Quality assurance framework embedded in the National Skills Qualifications Framework (NSQF), market-relevant training programmes, fostering mobility for the skilled manpower both laterally and vertically, recognition of prior learning, curriculum alignment, soft skills and IT skills have been identified.

4. *Synergy:* Where initiatives will be taken to integrate the various skilling schemes from different ministries in India.

Apart from the enablers outlined above, the policy also outlines the way forward on the aspect of assessment. This has been the key area of intervention that has been highlighted by several stakeholders to ensure there is seamless delivery of blended learning modules. There would be a framework for independent assessment and certification which would also have e-assessment to scale up capacity and increase convenience.

Given this background where several initiatives are already on the anvil, IMaCS proposes the following areas of intervention for the government:

- **Policy for blended learning integrated with SSC mandate**

- **Work with SSCs and other nodal bodies to enhance awareness of alternative learning pedagogies**

- **Ramp up efforts for implementation of a common digital platform for skilling**

- **Work with SSCs to strengthen the assessment component of the skilling value chain**

- **Work with SSCs to increase and streamline the e-assessment component in vocational space**

- **Outline a funding mechanism to further large-scale blended learning**

- **Be open to leverage international expertise in initial stages of implementation**

- **Evolve and implement practical mechanisms to recognise part-time employment aided by parallel skilling**

Indian Sector Skill Councils

The SSCs play a pivotal role in the skill landscape. In order to ensure that the skill development efforts being made by all the stakeholders in the system are in accordance with the actual needs of industry, Sector Skill Councils (SSCs) are being set up. Sector Skills Councils are industry-led and industry-governed bodies, who will complement the existing vocational education system for the industry sector in meeting the requirements of appropriately trained manpower. The development of the qualifications pack with the occupational standards (which also cover the skills and performance criteria) need to basically cover the aspect of blended learning-related skills. The other key initiatives that the SSCs need to spearhead are outlined below:

- **Propagate use of blended pedagogy.**
- **Create the ecosystem to ensure this reflects as part of the qualification packs, NOS and assessment criteria.**
- **Ensure that the certification can be given for blended learning courses also.**
- **Contribute with sector-specific inputs for implementing the large-scale blended learning models.**

Indian providers

The Indian providers are beginning to embrace newer pedagogies to deliver training which looks to optimise resources and enhance the employability. Across this research several nascent models have also been highlighted that look to leverage technology components for delivering the learning objectives. It is with this paradigm shift in the training delivery mechanisms that IMaCS suggests the following interventions for the Indian training providers:

- **Awareness on areas of blended learning application**
- **Skill and empower the captive trainers to create, customise and use blended content for training**
- **Look for proto-cooperation in the sectors of operation**
- **Create world-class blended learning content in the long run**
- **Be open to leverage international expertise in initial stages of implementation**

UK providers

As highlighted in the National Policy for Skill Development and Entrepreneurship 2015, building on international expertise with sustainable partnerships is the need of the hour. With the requirements in the skill landscape mirroring various developments in the international arena, there necessarily has to be proto-cooperation in this space, especially with a nation like the UK which has already traversed quite a distance in using the blended pedagogy.

However, there exists a flip side to this partnership. The international partners also need to have realistic expectations from the arrangements and should not look to have short-term solutions with technology as the central idea. With this approach of exploring mutual learning and strengthening the skill landscape in India, IMaCS proposes the following for UK providers:

- Demonstrate the right value proposition and work with Indian partners.
- Develop an appropriate engagement model.
- Cultivate risk appetite, patience and flexibility to work in India.
- The technology aspects should not alone dictate the interventions in India.

Employers

The employers fundamentally represent the demand segment for the skills. The ultimate goal of any skill-oriented programme is to fundamentally have a line of sight to employment. Given this relationship, there is some onus on the employers/industry to actively engage with the nodal skilling bodies, training providers

and assessment bodies to share their needs. Though the SSCs are already bringing the employers within this umbrella with their processes, IMaCS proposes the following interventions for employers:

- **Be more proactive in engaging with all the stakeholders (government, SSC, training providers, trainees) to adequately reflect industry requirements.**

- **Cultivate the in-house practice of using a blended approach for on-the-job skilling and ensure the same is recognised with the appropriate certification.**

- **Actively promote knowledge-sharing**

Trainees

The trainees segment for vocational skilling is typically aged from 16 to 45 years who are part of the segment in India which is looking for placements along with the skilling exercise. Given this expectation and cohort, IMaCS proposes the following areas of intervention:

- **Appreciate that vocational skills are yet another way to be employable. A vocationally skilled person does not necessarily mean that he/she lacks certain abilities.**

- **Build awareness of various gainful ways technology can be utilised.**

- **Actively participate in collaborative learning sessions.**

- **Build awareness of all initiatives that can further the individual career path.**

- **Work constantly towards enhancing their employability.**

These areas of intervention pave the way to explore opportunities across the skilling value chain for UK providers in India. Volume II of the report will provide details in this respect.

Vandita Tewari Kapoor
Senior Education & Skills Advisor, Prosperity
British High Commission, New Delhi
India
vandita.tewari@fco.gov.uk

Leighton Ernsberger
Assistant Director - Skills, India
British Council
17 Kasturba Gandhi Marg
New Delhi 110 001
India
leighton.ernsberger@britishcouncil.org